## **Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

### **Listing of Claims:**

1. (Currently Amended) A process for preparing a 5-(acyloxy)-N,N-dialkyl-2-cyclopentene-1-acetamide of Formula III, comprising:

Reacting reacting a 3-acyloxy-5-hydroxycyclopentene of Formula I:

Formula I

with an amide acetal of Formula IIa or a ketene aminoacetal of Formula IIb:

$$R_1$$
  $R_1$   $R_1$   $R_1$   $R_2$   $R_3$   $R_4$   $R_5$   $R_5$ 

Formula lla

Formula IIb

wherein; :

R<sub>1</sub> and R<sub>1</sub> are C<sub>1</sub> to C<sub>4</sub> alkyl or R<sub>1</sub> and R<sub>1</sub> taken together form a ring of 3 to 7 members;

R2 is C1 to C4 alkyl; and

Ac is C<sub>1</sub> to C<sub>4</sub> alkanoyl;

at 90-140°C in a suitable solvent of boiling point >90°C while maintaining an alcohol R<sub>2</sub>OH concentration of less than 3% by volume to give an acylhydroxycyclopenteneacetamide of Formula III; :

Formula III.

- 2. (Currently Amended) A process according to Claim claim 1 for preparing (4R, 5S)-3,3a,6,6a-tetrahydo-2H-cyclopentan[b]furan-2-one (4R, 5S)-3,3a,6,6a-tetrahydro-2H-cyclopentan[b]furan-2-one, further comprising the steps of:
- <u>a)</u> Adding <u>adding</u> an alkali or alkali earth hydroxide, carbonate, bicarbonate, or quaternary ammonium hydroxide solution to give a homogeneous or biphasic mixture; and
  - **b)** Adding adding a strong acid of pK<sub>a</sub> < 2 to give the title lactone of Formula IV:

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#### Formula IV.

3. (Currently Amended) A product prepared by a process comprising: Reacting reacting a 3-acyloxy-5-hydroxycyclopentene of Formula I:



#### Formula I

with an amide acetal of Formula IIa or a ketene aminoacetal of Formula IIb:

$$R_1$$
 $R_1$ 
 $R_1$ 
 $OR_2$ 
 $OR_2$ 

Formula lla

Formula lib

# wherein; :

R<sub>1</sub> and R<sub>1</sub> are C<sub>1</sub> to C<sub>4</sub> alkyl or R<sub>1</sub> and R<sub>1</sub> taken together form a ring of 3 to 7 members;

R<sub>2</sub> is C<sub>1</sub> to C<sub>4</sub> alkyl; and

Ac is C<sub>1</sub> to C<sub>4</sub> alkanoyl;

at 90-140°C in a suitable solvent of boiling point >90°C while maintaining an alcohol  $R_2OH$  concentration of less than 3% by volume to give an acylhydroxycyclopenteneacetamide of Formula III; :

Formula III.

- 4. (Currently Amended) A product prepared by a process according to Claim claim 3, further comprising the steps of:
- <u>a)</u> Adding <u>adding</u> an alkali or alkali earth hydroxide, carbonate, bicarbonate, or quaternary ammonium hydroxide solution to give a homogeneous or biphasic mixture; and
  - **b)** Adding adding a strong acid of pK<sub>a</sub> < 2 to give the title lactone of Formula IV:

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Formula IV.